



CODE WORKS!

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WORDS FROM DIRECTOR IRVIN J. POKE, AIA

As you know by now, 2011 PA 256, the Michigan Fireworks Safety Act, took effect on January 1, 2012. Responsibility for enforcing the act has been delegated to the Michigan Bureau of Fire Services and State Fire Marshal Richard W. Miller. The state fire marshal and I have signed a joint agreement containing guidelines for the implementation of the act and stating how the Michigan Building Code will be applied in conjunction with the 2011 PA 256 and the NFPA 1124. The guidelines are posted on our website at www.michigan.gov/bcc.

MAY IS BUILDING SAFETY MONTH

Governor Rick Snyder declared May 2012 as Building Safety Month in Michigan. The theme of the month-long observance is "An International Celebration of Safe and Sensible Structures" with a focus on energy and green building, disaster safety and mitigation, fire safety and awareness, and backyard safety.

LARA's Bureau of Construction Codes and Bureau of Fire Services work as a team to ensure that the built environment and the systems within are sound, safe, and sanitary; the public's health, safety, and welfare is protected; and that, through a coordinated program of code compliance, investigation, and training, there is consistent application of standards. For more information, go to www.michigan.gov/bcc.

PLAN REVIEW DIVISION

EMERGENCY RESPONDER RADIO COVERAGE IN NEW BUILDINGS

By Todd Cordill, NCARB, Chief

Plan Review Division

According to Section 915 of the 2009 Michigan Building Code (MBC), emergency responder radio coverage shall be provided in all new buildings. The applicable technical requirements for such radio coverage are found in Section 510 of the 2009 International Fire Code (IFC) and are performance-based. This section of the IFC is directly referenced by MBC Section 915.1. IFC Section 510.1 states:

All buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

In brief, this section requires that existing radio coverage levels for emergency responders be met or exceeded within a new building. Interference or blocking shall not occur with first responder radio signals throughout a new building. This code requirement does not mandate the installation of radio equipment in a new building. It merely sets forth a requirement for radio signal reception and transmittance throughout a new building for emergency responders. There are two exceptions to IFC Section 510.1:

1. Where approved by the building official and the fire code official, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained in lieu of an approved radio coverage system.

2. Where approved by the building official and the fire code official that the radio coverage system is not needed.

How is compliance with these code requirements demonstrated in a new building? IFC Section 510.2 addresses radio signal strength for emergency responder radios when used in a new building. Signal strength measurements in 95 percent of all areas on each floor of a building shall meet the following minimum levels:

1. A minimum signal of 95 dBm into a building shall be receivable within the building.
2. A minimum signal of 100 dBm shall be received by the agency's radio when transmitted from within a building.

The determining factor for a code official to verify code compliance is the radio equipment of the responding police and fire departments in the jurisdiction of the code enforcing agency. A code official should coordinate testing of radio signal strength with the local police and fire departments having jurisdiction. Adequate signal performance of portable radios used by emergency responders inside new buildings is the primary objective of this code requirement that did not exist prior to the 2009 Michigan Building Code. If there are building elements or systems that interfere with radio signal performance, then signal booster or amplification equipment may be needed in a building. The technical requirements for such equipment or systems are found in Appendix J, Section J103 of the IFC.

Questions may be addressed to the Plan Review Division at (517) 241-9328.

Providing for Michigan's Safety
in the Built Environment

BUILDING DIVISION

FIREPLACE GASKETED DOORS

By **Larry Lehman, Chief**

Building Division

The Bureau has received numerous calls inquiring about when gasketed doors must be installed on fireplaces in accordance with section 402.4.3 of the 2009 Michigan Uniform Energy Code (MUEC).

Section 402.4.3 Fireplaces reads “New wood-burning fireplaces shall have gasketed doors and outdoor combustion air.”

It is obvious from reading this brief code requirement, section 402.4.3 only addresses new wood burning fireplaces. This code section is intended to address indoor air qualities and to provide energy savings by minimizing air leakage through fireplaces during periods of non-use.

To be clear, the language “wood-burning fireplaces” is meant to apply to masonry fireplaces constructed on the building site in accordance with the 2009 Michigan Residential Code R1001.1, and not factory-built fireplaces manufactured

in accordance with the 2009 Michigan Mechanical Code. This is based upon the fact that certain UL-127 “factory built” fireplaces are listed and labeled to burn wood, and the subsequent installation of gaskets would violate conditions of their listing. Furthermore, MUEC section 101.3 “... this code is not intended to abridge safety... requirements contained in other applicable codes or ordinances.”



Questions regarding this article may be directed to the Building Division at (517) 241-9317.

MECHANICAL DIVISION

TYPE 1 HOOD EXHAUST FAN AND COOKING EQUIPMENT INTERLOCK

By **Norwood Bates, Senior Inspector**

Mechanical Division

The adoption of the 2006 Michigan Mechanical Code introduced the requirement for all type 1 hood systems to automatically activate the exhaust fan whenever cooking operations occur (section 507.2.1.1). The activation of the exhaust fan shall occur through an interlock with the cooking appliances, by means of heat sensors or by means of other approved methods. The 2009 Michigan Mechanical Code references 507.2.1.1 without revisions.

The Mechanical Division has responded to many inquiries regarding the proper method to interlock the exhaust fan with the cooking equipment. The selection of the interlock method must be determined by the design professional. The 2009 International Mechanical Code and commentary describe a possible misinterpretation where the installer or design professional believes the exhaust fan must be individually interlocked with each

appliance located under the hood. Interlocking the individual appliances may not be the preferred method of interlock. The commentary goes on to state that tampering or altering listed and labeled appliances may in itself cause a code violation.

The method of utilizing a heat sensor located in the hood appears to be the most commonly used method of interlock; however, the code does not specify a required activation temperature. All temperature sensing devices must be listed and approved for the application where they are to be installed, and must be installed to the manufacturer's installation instructions. Additionally, the heat sensor penetration of the duct or hood must utilize a fire proof / leak proof “approved” fitting for a type 1 hood application.

Questions regarding this article may be directed to the Mechanical Division at (517) 241-9325.

BOILER DIVISION

APPLYING FOR A BOILER PERMIT ONLINE

By William Vallance, Chief
Boiler Division

Boiler permit applications may be mailed to the Boiler Division for approval, or they may be submitted online. The online application is available through the Michigan Business One Stop website at <http://www.michigan.gov/business>.

The One Stop Resource Center has an array of resources and tools to help individuals and businesses, including the ability to apply for new licenses and permits regardless of which state agency oversees that permit or license. Users must register and may then access the site as a new or existing business or as an individual/service provider.

The One Stop Resource site is easy to navigate. Once you have successfully registered as a user and receive a password, you must log in. You then choose to proceed as a business or individual/service provider. Proceeding as a business will take you through a series of questions to define your business type and enter contact information. Once a business is fully registered, users may submit boiler permits online. This allows licensees to bypass the postal system and save up to five permit turnaround days. Online permitting also offers the convenience of paying by credit card or electronic check. Individuals/service providers may fill out a boiler permit application online, but it must be printed and mailed to the Boiler Division.

Please direct questions to the Boiler Division at (517) 241-9334.

CONTROL TESTING OF BOILERS OVER 12,500,000 BTU/HR INPUT

By William Vallance, Chief
Boiler Division

The Boiler Division has received questions lately asking where the Michigan Boiler Rules require that boilers *larger than* 12,500,000 BTU/HR must have controls tested. ASME code CSD-1 is adopted by reference in Section 408.4027 of the Michigan rules. ASME code CSD-1 requires control testing for boilers *up to* 12,500,000 BTU/HR input.

Michigan boiler rule 408.4503, requires an owner or user to prepare a boiler for inspection per the National Board Inspection Code (NBIC) and the Michigan rules. The NBIC, Section 2, paragraph 2.2.11, states the inspector is to ensure that regular and adequate tests have been made on the boiler and controls. This

paragraph does not limit the size of the boiler, thus includes boilers *larger than* 12,500,000 BTU/HR input.

Testing of controls is conducted by an individual with a valid mechanical contractor license with the appropriate classification pursuant to 1984 PA 192, MCL 338.971 et seq. Those conducting testing must be under the guidance and supervision of the licensed mechanical contractor.

In summary, boilers over 12,500,000 BTU/HR input are required to have testing conducted as required per Michigan boiler rule 408.4503. Questions may be addressed to the Boiler Division at (517) 241-9334.

ATTENTION READERS!

If you know of an organization or individual that would benefit from the information posted in BCC's newsletter, please direct them to our website at www.michigan.gov/bcc. Then, click on the "Publications/Bulletins/Interpretations/Advisories" link for more information on how to subscribe to and receive an electronic notification of when each quarterly newsletter is posted.

ELEVATOR SAFETY DIVISION

A LICENSED ELEVATOR JOURNEYPERSON IS REQUIRED FOR SPECIFIC HYDRAULIC WELL HOLE DRILLING ACTIVITIES

**By Calvin Rogler, Chief
Elevator Safety Division**

The Elevator Safety Division submits the following information to clarify the requirements necessary when installing/drilling well holes for the installation of hydraulic cylinders.

Most hydraulic elevators are the direct acting type with the hydraulic piston pushing up on the car frame from under the center of the elevator. This design requires a well hole in the ground into which the hydraulic cylinder and piston are placed. This well hole is approximately as deep in the ground as the rise of the elevator above the bottom floor.

Many times on new building sites the elevator company will schedule the well driller to drill the well hole before the building walls are installed. This option allows the well driller to use a truck mounted drilling rig, and is usually preferred by the contractor of the building. Truck mounted drilling rigs are fast and the cleanup after drilling the well hole is usually easier and quicker with this approach. For this type of drilling operation a Michigan-licensed elevator person is not required to either drill the well hole or provide direct supervision of the drilling of the well hole since elevator equipment is not present.

On new buildings, once the walls are constructed access to the elevator hoistway to drill a well hole for a hydraulic elevator can be quite challenging. Once the building walls are up, truck mounted drilling rigs are unable to access the site and get to the elevator location. For this situation the well driller usually relies on a portable well

drilling rig. The portable rig is comprised of a machine which provides either pressurized air or oil to a drilling head. The drilling head hangs in the hoistway and spins a casing down into the ground. On this type of machine the elevator guide rails are usually used to keep the driving head centered with the well hole and to prohibit the driving head from spinning backwards against the forces spinning the casing. If the elevator rails are used during this process a Michigan-licensed elevator person is required to either drill the well hole or provide direct supervision of the drilling of the well hole. If the elevator rails are not in the hoistway or if only the rails are in the hoistway and will not be used during the drilling process then a Michigan-licensed elevator person is not required to either drill the well hole or provide direct supervision of the drilling of the well hole.

When it becomes necessary to replace a hydraulic cylinder on an existing elevator a licensed elevator journeyman must perform or provide direct supervision of any drilling that is done. Damage to elevator equipment which may occur during the drilling process is a safety concern.

Alteration permits for the installation of new hydraulic cylinders must receive approval by the elevator inspector. During the final inspection, the inspector will check to assure the required monitoring means is provided (Michigan Rule R 408.7043 and R 408.7043a).

If you have questions or concerns with regards to installing hydraulic cylinders in elevator hoistways, please call the Elevator Safety Division at (517)-241-9337.

BCC Contact Information

TELEPHONE NUMBERS:

Administration (517) 241-9302
Office of Administrative Services (517) 335-2972
Office of Management Services (517) 241-9313
Boiler Division (517) 241-9334
Building Division (517) 241-9317
Act 54 Registration (517) 241-9317
Electrical Division (517) 241-9320
Elevator Safety Division (517) 241-9337
Mechanical Division (517) 241-9325
Office of Land Survey & Remonumentation (517) 241-6321
(includes State Boundary Commission)
Plan Review Division (517) 241-9328
Plumbing Division (517) 241-9330

FACSIMILE NUMBERS:

Administration & Office of Administrative Services (517) 241-9570
Office of Management Svcs, & Plumbing Division (517) 373-8547
Building, Electrical, Mechanical, Plan Review (517) 241-9308
Office of Land Survey & Remonumentation, Elevator Safety & Boiler Divisions (517) 241-6301

MAILING ADDRESSES:

P.O. Box 30254 (Codes: general correspondence)
P.O. Box 30255 (Codes: permits, licenses, and other documents containing payment)
P.O. Box 30704 (Office of Land Survey & Remonumentation)
Lansing, MI 48909

OVERNIGHT MAILING ADDRESSES:

2501 Woodlake Circle, Okemos, MI 48864

PLUMBING DIVISION

PLUMBING LAW OBJECTIVES

By Robert Konyndyk, Chief

Plumbing Division

This article reviews the licensing requirements for companies performing plumbing work in Michigan, and also discusses recent improvements to backflow prevention training.

Plumbing Licensure

The State Plumbing Act, 2002 PA 733, Sections 15 and 41, require that plumbing shall not be performed in the state of Michigan without a permit first being obtained by a licensed plumbing contractor with the licensing exceptions noted in MCL 338.3525 . Section 15 further states that “A person shall not engage in or work at the business of a plumbing contractor, master plumber, journey plumber, or apprentice plumber unless licensed or registered by the department [of Licensing and Regulatory Affairs].” Plumbing contractors shall employ a full-time master plumber or shall be a master plumber licensed in the state of Michigan. Other individuals, whether licensed or not, shall not engage in the business of plumbing (contracting) with the public. Unlicensed individuals or licensees doing plumbing work and then seeking a licensed contractor to obtain permits for the work, are in violation of the statute.

Recently, the Plumbing Division has become aware of situations where contractors or plumbers from out-of-state have attempted to do plumbing work in Michigan without being licensed as a Michigan plumbing contractor. When local enforcing agencies or the Bureau of Construction Codes identify such situations, the unlicensed individuals often attempt to secure the assistance of Michigan licensed

plumbing contractors to either pull the necessary permits or use their contractor’s license for the in-state contract. Sections 43 and 47 of the Act address department investigations, hearings, board actions and licensing sanctions for individuals involved in these practices. Sections 49 and 51 of the Act address misdemeanor violations with fines up to \$5,000 per violation for licensed and unlicensed practitioners and provide authority to local jurisdictions to prosecute unlicensed individuals.

Backflow Prevention Training Improvements

Improvements in backflow prevention training are summarized by stating that greater efforts are underway to improve the quality of training and to provide greater national uniformity in programs by following American Society of Sanitary Engineering (ASSE) requirements. The State Plumbing Board continues to recognize the Michigan Plumbing & Mechanical Contractors Association (MPMCA) as a training provider. They have made significant restructuring efforts as illustrated by a new 40-hour class for testers versus the previous three-day class.

While changes in the programs have occurred the basic premise remains the same: water purveyors in this state recognize the MPMCA training certification. Individuals who have taken classes through the previous system will continue to be recognized. Future efforts will address repairers and ongoing education certification.

Questions on these matters may be directed to the Plumbing Division at (517) 241-9330.

Board and Commission Meetings

<u>MEETING</u>	<u>DATE</u>	<u>TIME</u>	<u>LOCATION</u>
Barrier Free Design Board	Jul 13	9:30 am	Okemos – Conf Room 3
Board of Boiler Rules	Jun 12	9:30 am	Okemos – Conf Room 3
Construction Code Commission	Jul 9	9:30 am	Okemos – Conf Room 3
Electrical Administrative Board	May 24	9:30 am	Okemos – Conf Room 3
Elevator Safety Board	Jun 8	9:30 am	Okemos – Conf Room 3
Manufactured Housing Commission	Jun 20	10:00 am	Okemos – Conf Room 3
Board of Mechanical Rules	May 16, Aug 15	9:00 am	Okemos – Conf Room 3
State Boundary Commission	Jun 13, Aug 8	1:30 pm	Okemos – Conf Room 3
State Plumbing Board	Jun 5	10:00 am	Okemos – Conf Room 3
	Jul 11	8:15 am	UP Fairgrounds, Escanaba, MI

Dates and times are subject to change. Visit the [BCC website](http://www.michigan.gov/bcc) for updates.

ELECTRICAL DIVISION

CHANGES REGARDING MULTIWIRE BRANCH CIRCUITS

By **Dan O'Donnell, Chief
Electrical Division**

The 2008 NEC/NFPA 70 code had a significant change regarding multiwire branch circuits and the Electrical Division has received phone calls from several electrical contractors who were unaware of the change in article 210.4. Previous codes had referred to multiwire branch circuits supplying more than one device or equipment on the same yoke be provided with a means to simultaneously disconnect all ungrounded circuits at the point of origin. Article 210.4(B) in the 2008 NEC now requires that multiwire branch circuits be provided with a means to simultaneously disconnect all ungrounded conductors at the point where the branch circuit originates. This new language is much broader with respect to multiwire branch circuits.

One of the areas where this change has created a challenge is in large chain stores. These stores regularly reconfigure their displays, coolers, refrigeration equipment, etc. and often install new equipment as part of their renovations. Electrical contractors and engineers always try to optimize existing electrical circuitry as well as conduit systems and other pieces of the electrical infrastructure. This methodology certainly is practical and efficient; however, when such an alteration occurs it is the responsibility of the electrical contractor to assure that the remodeled portion of the project is done in compliance with the current code. Projects such as the one described above have historically used multiwire branch circuits; however, many building owners do not want other

equipment affected if another piece of equipment fails or needs to be shut down for servicing. It is important for engineers and electrical contractors to be mindful that when a building owner wants to assure independence with respect to electrical circuits that using multiwire branch circuits is no longer an option due to the 2008 code change. In order to comply with this request, each piece of equipment would have to have a separate grounded circuit conductor (neutral) brought to it thus allowing for independent operation of the overcurrent device. Adding neutrals to existing raceways could impact the derating factor for the existing conductors contained in the raceway.

Another change related to multiwire branch circuits is Article 210.4(D). This new requirement stipulates that ungrounded and grounded conductors of a multiwire branch circuit shall be grouped by wire ties or similar means within the panelboard or point of origin. Many times there is a mixture of multiwire branch and non-multiwire branch circuits in the same raceway and this new requirement would apply in those situations. The exception to 210.4(D) states this shall not apply if the circuit enters from a cable or raceway unique to that circuit.

Being aware of these changes can eliminate code violations and the added cost of having to make changes to bring the installation into compliance with the code. If you have questions concerning this issue you may contact the Electrical Division at (517) 241-9320.

MICHIGAN CODES & RULES CURRENTLY IN EFFECT

Boiler Rules	07/30/2010
Building/Residential Codes (Part 4)	03/09/2011
Electrical Code (Part 8)	12/02/2009
Elevator Safety - General	06/21/2010
Manufactured Housing General Rules	09/02/2008
Mechanical Code	10/21/2010
Plumbing Code (Part 7)	08/20/2010
Rehabilitation Code	03/09/2011
Subdivisions of Land	06/16/2008
Uniform Energy Code	03/09/2011

FOR CODE/RULE UPDATES - Visit [BCC's website](http://www.bccs.org) to monitor updates on code review processes.

OFFICE OF LAND SURVEY AND REMONUMENTATION

OLSR RULEMAKING

By Chris Beland, P.S., Director

Office of Land Survey and Remonumentation

Governor Snyder extended the challenge to “reinvent state government,” and the Office of Land Survey and Remonumentation (OLSR) was asked to review the programs we administer. Specifically, we were asked to review all administrative rules and office policies used to facilitate our programs in an effort to streamline our processes, make them more business friendly, and provide greater efficiency, effectiveness, and transparency.

After reviewing the State Boundary Commission (SBC) rules, OLSR recommended the rules be opened and amended due to the following:

1. The SBC rules have not been updated since promulgation in 1979, and the State Boundary Commission Act, 1968 PA 191, has been amended multiple times since inception.
2. The procedures discussed in the rules are not in a logical order and do not reflect the established SBC process.
3. Parameters for submitting and meeting the “legal sufficiency” criteria of a petition are vague.

The SBC rules were approved for review and rewrite in December 2011. A rules committee was formed and revisions drafted to:

1. Allow for modern forms of communication and generally accepted business practices.
2. Reorganize the described work flow to coincide with the existing SBC petition process.
3. Remove any regulatory demands not required by law or practiced by the SBC.

4. Clarify requirements for “legal sufficiency” and allow for minor revisions at the discretion of the SBC to assist all petitioners to meet legal sufficiency.

To date, the revised SBC rules have been drafted and are awaiting public hearing.

Following a review of the Survey and Remonumentation rules, OLSR is currently working on a re-write for the following reasons:

1. Survey and Remonumentation Commission administrative rules have not been revised since promulgation in 1992, and the State Survey and Remonumentation Act, 1990 PA 345, has been amended multiple times since inception.
2. The rules lack the necessary operating guidelines and program requirements to administer the annual grants. Consequently, numerous guidelines and information memoranda issued to the county need to be placed in the rules to provide consistency in program administration.
3. The rules lack the necessary guidelines to complete remonumentation of the counties, establish perpetual monument maintenance plans in the counties, or file the land corner records as called for in the Survey and Remonumentation Act, 1990 PA 345.

OLSR is in the process of reviewing the administrative rules for the Land Division Act, 1967 PA 288. A recommendation is expected later this summer.

Please contact the Office of Land Survey and Remonumentation at (517) 241-6321 with questions.

License Examination Dates

BCC ONLINE SERVICES

[Manufactured Home Affidavit of Affixture](#)
[Online Lookup](#)
[Online License Search](#)
[Disciplinary Action Report](#)
[Easy Access to Permit & License Verification](#)
[Statewide Search for Subdivision Plats](#)
[Statewide Search for Remonumentation Data](#)
[County Remonumentation Data Entry](#)
[Building System Approval Reports](#)
[Online Code Training Series](#)
[BCC Field Inspection Survey](#)

BCC QUICK LINKS

[Online Permitting](#)
[Online License Renewals](#)
[Codes & Standards Order Form](#)
[Statewide Jurisdiction List](#)
[Local School Construction Enforcement List](#)

CIVIL SERVICE WEBSITE

[State Job Postings](#)

Code Works! is a quarterly publication of the Bureau of Construction Codes within the Department of Licensing and Regulatory Affairs

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Created under the authority of
1972 PA 230.

<u>EXAMINATION</u>	<u>DATE</u>	<u>LOCATION</u>	<u>DEADLINE</u>
Boiler Installer and Repairer	Jun 6&7	Okemos	May 11
Fire Alarm Spec. Tech./Sign Spec.	Jul 10	Okemos	Jun 11
Electrical - Journeyman	Jul 17 Aug 16	Escanaba Lansing	Jun 18 Jul 19
Electrical - Master	Jul 17 Aug 16	Escanaba Lansing	Jun 18 Jul 19
Electrical - Contractor	Jul 10 Jul 17	Okemos Escanaba	Jun 11 Jun 18
Elevator Journeyperson	May 22 Jul 24	Okemos Okemos	May 1 Jul 3
Elevator Contractor/ Certificate of Competency	Jun 8	Okemos	May 11
Mechanical Contractor	Jun 12	Lansing	May 15
Plumbing - Contractor	Jun 13 Jul 12	East Lansing Escanaba	
Plumbing - Master and Journey	Jun 6 Jul 12	East Lansing Escanaba	

Dates and times are subject to change. Visit the [BCC website](#) for updates.



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